

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
19 February 2004 (19.02.2004)

PCT

(10) International Publication Number
WO 2004/015827 A1

(51) International Patent Classification⁷: H01S 3/083, 3/067, 5/10

(21) International Application Number: PCT/GB2003/003487

(22) International Filing Date: 8 August 2003 (08.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0218472.9 8 August 2002 (08.08.2002) GB

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

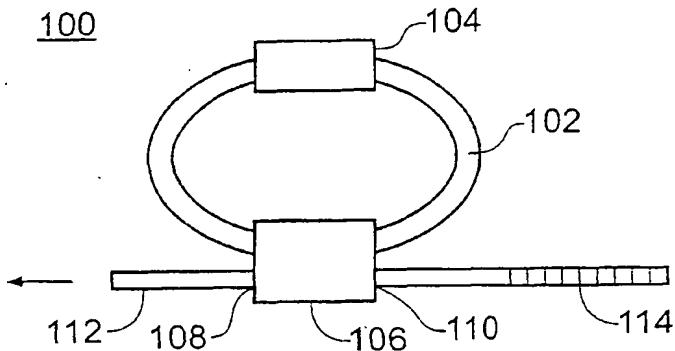
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TUNABLE RING LASER WITH EXTERNAL GRATING OPERATING IN A SINGLE MODE



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(57) Abstract: A tunable lasing device (100) comprising a ring-shaped laser cavity (102), an optical gain element (104), a bi-directional output coupler (106) and a frequency selection means (114). The frequency selection means is generally a grating with a refractive index that determines a grating reflection frequency. Single mode laser operation is achieved where a cavity mode frequency of the ring-shaped laser cavity coincides with a grating reflection frequency. The refractive index of the grating can be modified by the injection of a variable current. In this way, the lasing frequency can be rapidly tuned between cavity mode frequencies.